



Framework: Collaborative Delivery Framework
Supplier: Ove Arup & Partners Ltd
Company Number: 01312453

Geographical Area: North East
Contract Name: Yorkshire High Risk Debris Screens Detailed Design
Project Number: [REDACTED]

Contract Type: Professional Service Contract
Option: Option C

Contract Number: [REDACTED]

Stage: OBC_to_FBC

Revision	Status	Originator	Reviewer	Date

**PROFESSIONAL SERVICE CONTRACT under the Collaborative Delivery Framework
CONTRACT DATA**

Project Name Yorkshire High Risk Debris Screens Detailed Design

Project Number [REDACTED]

This contract is made on
between the *Client* and the *Consultant*

- This contract is made pursuant to the Framework Agreement (the "Agreement") dated 01st day of Agreement Extension dated 1st April 2023 between the *Client* and the *Consultant* in relation to the Collaborative Delivery Framework. The entire agreement and the following Schedules are incorporated into this Contract by

- Schedules 1 to 23 inclusive of the Framework schedules are relied upon within this contract.

- [REDACTED]

**Part One - Data provided by the *Client*
Statements given in
all Contracts**

1 General

The *conditions of contract* are the core clauses and the clauses for the following main Option, the Option for resolving and avoiding disputes and secondary Options of the NEC4 Professional Service Contract June 2017.

Main Option	Option C	Option for resolving and avoiding disputes	W2
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Secondary Options

X2: Changes in the law

X5: Sectional Completion

X7: Delay damages

X9: Transfer of rights

X10: Information modelling

X11: Termination by the *Client*

X18: Limitation of liability

X20: Key Performance Indicators

Y(UK)2: The Housing Grants, Construction and Regeneration Act 1996

Y(UK)3: The Contracts (Rights of Third Parties) Act 1999

Z: *Additional conditions of contract*

The *service* is Professional services for the Detailed Design of Debris Screens for the Yorkshire High Risk replacement package



The Scope is in
Trash Screen Replacement Programme Yorkshire Detailed Design 6.1

The *language of the contract* is English

The *law of the contract* is
the law of England and Wales, subject to the jurisdiction of the courts of England and Wales

The period for reply is 2 weeks

The *period for retention* is 6 years following Completion or earlier termination

The following matters will be included in the Early Warning Register

Early warning meetings are to be held at intervals no longer than 2 weeks

2 The Consultant's main responsibilities

The *key dates* and *conditions* to be met are
conditions to be met *key date*

'none set' 'none set'

'none set' 'none set'

'none set' 'none set'

The *Consultant* prepares forecasts of the total Defined Cost plus Fee and *expenses* at intervals no longer than 4 weeks

3 Time

The *starting date* is

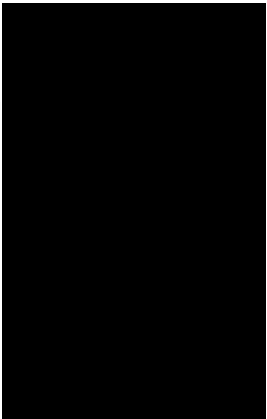
The *Client* provides access to the following persons, places and th
access

aSite

FastDraft

CDC

Project Team SharePoint



[Redacted]

[Redacted] 4 weeks

[Redacted]

[Redacted]

[Redacted]

[Redacted]

The period between Completion of the whole of the *service* and the *defects date* is [Redacted]

5 Payment

[Redacted]

[Redacted]

[Redacted]

The *expenses* stated by the *Client* are as stated in Schedule 9

[Redacted] [Redacted] per annum (not less than 2) above the Bank of England

The locations for which the *Consultant* provides a charge for the cost of support people and office overhead are All UK Offices

[Redacted]

[Redacted] *share range* [Redacted] *Consultant's share percentage*

6 Compensation events

These are additional compensation events

1. Carbon Methodology - Adherence to and compliance with the Carbon Methodology dated 08 June 2023
2. 'not used'
3. 'not used'
4. 'not used'
5. 'not used'

8 Liabilities and insurance

These are additional *Client's* liabilities

1. 'not used'
2. 'not used'
3. 'not used'

The minimum amount of cover and the periods for which the *Consultant* maintains insurance are

EVENT

The *Consultant's* failure to use the skill and care normally used by professionals providing services similar to the service

Loss of or damage to property and liability for bodily injury to or death of a person (not an employee of the *Consultant*) from or in connection with the *Consultant* Providing the Service

Death of or bodily injury to the employees of the *Consultant* arising out of and in the course of employment in connection with the contract

The *Consultant's* total liability to the *Client* in matters arising under or in connection with the contract, other than the excluded matters is limited to

Resolving and avoiding disputes

The *tribunal* is litigation in the courts

The *Adjudicator* is
Address for communications

'to be confirmed'
'to be confirmed'

Address for electronic communications

['to be confirmed'](#)

The *Adjudicator nominating body* is

The Institution of Civil Engineers

Z Clauses

Z1 Disputes

Delete existing clause W2.1

Z2 Prevention

The text of clause 18 Prevention is deleted.

Delete the text of clause 60.1(12) and replaced by:

The *service* is affected by any of the following events

- War, civil war, rebellion, revolution, insurrection, military or usurped power;
- Strikes, riots and civil commotion not confined to the employees of the *Consultant* and sub consultants,
- Ionising radiation or radioactive contamination from nuclear fuel or nuclear waste resulting from the combustion of nuclear fuel,
- Radioactive, toxic, explosive or other hazardous properties of an explosive nuclear device,
- Natural disaster,
- Fire and explosion,
- Impact by aircraft or other aerial device or thing dropped from them.

Z3 Disallowed Costs

Add the following in second bullet of 11.2 (18) add:

(including compensation events with the Subcontractor, i.e. payment for work that should not have been undertaken).

Add the following additional bullets after 'and the cost of ' :

- Mistakes or delays caused by the *Consultant's* failure to follow standards in Scopes/quality plans
- Reorganisation of the *Consultant's* project team
- Additional costs or delays incurred due to *Consultant's* failure to comply with published and known guidance or document formats
- Exceeding the Scope without prior instruction that leads to abortive cost
- Re-working of documents due to inadequate QA prior to submission, i.e. grammatical, factual arithmetical or design errors
- Production or preparation of self-promotional material
- Excessive charges for project management time on a commission for secondments or full time appointments (greater than 5% of commission value)
- Any hours exceeding 8 per day unless with prior written agreement of the *Service Manager*
- Any hours for travel beyond the location of the nearest consultant office to the project unless previously agreed with the *Service Manager*
- Attendance of additional individuals to meetings/ workshops etc who have not been previously invited by the *Service Manager*
- Costs associated with the attendance at additional meetings after programmed Completion, if delay is due to *Consultant* performance
- Costs associated with rectifications that are due to *Consultant* error or omission
- Costs associated with the identification of opportunities to improve our processes and procedures for project delivery through the *Consultant's* involvement
- Was incurred due to a breach of safety requirements, or due additional work to comply with safety requirements
- Was incurred as a result of the *Client* issuing a Yellow or Red Card to prepare a Performance Improvement Plan
- Was incurred as a result of rectifying a non-compliance with the Framework Agreement and/or any call off contracts following an audit

Z4 Share on termination

Delete existing clause 93.3 and 93.4 and replace with:

93.3 In the event of termination in respect of a contract relating to services there is no *Consultant's* share'

Z6 The Schedule of Cost Components

The Schedule of Cost Components are as detailed in the Framework Schedule 9.

Z7 Consultant's share

54.1 The *Service Manager* assess the *Consultant's* share of the difference between the Aggregated Total of the Prices and the Aggregated Price for Service Provided to Date.

The difference is divided into increments falling within each of the share ranges. The limits of a share range are the Aggregated Price for Service Provided to Date divided by the Aggregated Total of the Prices, expressed as a percentage. The *Consultant's* share equals the sum of the products of the increment within each share range and the corresponding *Consultant's* share percentage.

54.2 If the Aggregated Price for Service Provided to Date is less than the Aggregated Total of the Prices, the *Consultant* is paid its share of the saving. If the Aggregated Price for Service Provided to Date is greater than the Aggregated Total of the Prices, the *Consultant* pays its share of the excess.

54.2A If, prior to Completion of the whole of the service, the Price for Service Done to Date exceeds 111% of the total of the Prices, the amount in excess of 111% of the total of the Prices is retained from the *Consultant*.

54.3 If, prior to the Completion Date, the Price for Service Provided to Date exceeds 110% of the total of the Prices, the amount in excess of 110% of the total of the Prices is retained from the *Consultant*.

54.4 The *Service Manager* makes a preliminary assessment of the *Consultant's* share at Completion of the Whole of the service using forecasts of the final Aggregated Price for Service Provided to Date and the final Aggregated Total of Prices. This share is included in the amount due following Completion of the whole of the services.

54.5 The *Service Manager* makes a final assessment of the *Consultant's* share, using the final Aggregated Price for Service Provided to Date and the final Aggregated Total of the Prices. This share is included in the final amount due.

93.3 If there is a termination except if Z4 applies, the *Service Manager* assesses the *Consultant's* share after certifying termination. The assessment uses as the Aggregated Price for Service Provided to Date the sum of

- the total of
 - the Defined Cost which the *Consultant* has paid and
 - which it is committed to pay for work done before termination

and

- the total of
 - the Defined Cost which the *Consultant* or *Contractor* has paid and
 - which it is committed to pay

in the *partner contract* before the date the termination certificate is issued under this contract.

The assessment uses as the Aggregated Total of the Prices the sum of

- the total of
 - the lump sum price for each activity which has been completed and
 - a proportion of the lump sum price for each incomplete activity which is the proportion of the work in the activity which has been completed

and

- the total of
 - the lump sum price for each activity which has been completed and
 - a proportion of the lump sum price for each incomplete activity which is the proportion of the work in the activity which has been completed

Add:

11.2(25) The Aggregated Total of the Prices is sum of

- the total of the Prices and
- the total of the Prices in the *partner contract*

11.2(26) The Aggregated Price for Service Provided to Date is the sum of

- the Price for Service Provided to Date and
- the Price for Service Provided to Date or the Price for Work Done to Date in the *partner contract*.

Z23 Linked contracts

Issues requiring redesign or rework on this contract due to a fault or error of the *Consultant* will neither be an allowable cost under this contract or any subsequent contract, nor will it be a Compensation event under this contract or any subsequent contract under this project or programme.

Z24 Requirement for Invoice

Add the following sentence to the end of clause 51.1:

The Party to which payment is due submits an invoice to the other Party for the amount to be paid within one week of the *Service Manager's* certificate.

Delete existing clause 51.2 and replace with:

51.2 Each certified payment is made by the later of

- one week after the paying Party receives an invoice from the other Party and
- three weeks after the assessment date, or, if a different period is stated in the Contract Data, within the period stated.

If a certified payment is late, or if a payment is late because the *Service Manager* has not issued a certificate which should be issued, interest is paid on the late payment. Interest is assessed from the date by which the late payment should have been made until the date when the late payment is made, and is included in the first assessment after the late payment is made

Z25 Risks and insurance

The *Consultant* is required to submit insurances annually as Clause Z4 of the Framework Agreement

Z 29 Payment for Service Provided to Date

Delete existing clause 11.2 (21) and replace with:

"11.2 (21) The Price for Service Provided to Date is the total Defined Cost which the *Service Manager* forecasts will have been paid by the *Consultant* before the next assessment date plus the Fee. The Price for Service Provided to Date shall not exceed the forecast for the same as provided under clause 20.5"

Z111 PSC - Fee adjustment for non compliance with Scope

Delete existing 11.2 (8) and replace with the following clause

The Fee is the amount calculated by applying the fee percentage to the amount of the Defined Cost excluding the cost of Subcontractors that have not complied with procurement by best value processes as defined in the Scope. 80% of the fee percentage is applied to the amount of the Defined Cost for Subcontractors that have not complied with procurement by best value processes as defined in the Scope.

Z120 PSC – Carbon reduction

Ref. (Clause No.)	Clause words
11.2 Definitions	Add as Clause 11.2(36) (36) The Performance Table states the targets the <i>Consultant</i> is to achieve in Providing the Service and sets out the adjustment to payment if a measured performance is higher, the same or lower than its target. The Performance Table is the <i>performance table</i> unless later changed in accordance with the contract.
15.1 Early Warning	In Clause 15.1 add as a new bullet between the second and third bullet: <ul style="list-style-type: none"> • result in a target in the Performance Table not being met.
42.2 Accepting Defects	Delete Clause 42.2 and replace with: If the <i>Consultant</i> and the <i>Service Manager</i> are prepared to consider the change, the <i>Consultant</i> submits a quotation to the <i>Service Manager</i> for acceptance including any combination of: <ul style="list-style-type: none"> • Reduced Prices • An earlier Completion Date • A revised programme • Changes to the Performance Table If the quotation is accepted, the <i>Service Manager</i> changes the Scope, the Prices, the Completion Date and the Performance Table accordingly and accepts the revised programme.
Performance Measurements	
57	Add as Clause 57:
57.1	From the starting date until the Completion Date, the <i>Consultant</i> reports to the <i>Service Manager</i> its performance against the targets in the Performance Table. Reports are provided at the intervals stated in the Performance Table.
57.2	If the <i>Consultant's</i> performance against a target in the Performance Table is not achieving or is forecast not to achieve the performance target stated, it submits to the <i>Service Manager</i> for acceptance its proposals for improving performance. A reason for not accepting the proposals is that they will not provide the improvement in performance needed to achieve the target in the Performance Table.
57.3	At the dates stated in the Performance Table, <ul style="list-style-type: none"> • if the relevant performance does not meet the target stated in the Performance Table, the <i>Consultant</i> pays the amount stated in the Performance Table, • if the relevant performance exceeds or meets the target stated in the Performance Table, the <i>Consultant</i> is paid the amount stated in the Performance Table.
57.4	Information in the Performance Table is not Scope.

The *performance table* is [PSC-carbon-performance-table.xlsx](#)

the Performance Table for this contract type [form, Partner, Stage] as set out in the Carbon Methodology dated 08 June 2023

Secondary Options

OPTION X2: Changes in the law

The *law of the project* is the law of England and Wales, subject to the jurisdiction of the courts of England and Wales

OPTION X7: Delay damages

X7 only

Delay damages for Completion of the whole of the *service* are

██████████ ██████████

OPTION X10: Information modelling

The period after the Contract Date within which the *Consultant* is to submit a first Information Execution Plan for acceptance is

2 weeks

OPTION X18: Limitation of liability

The *Consultant's* liability to the *Client* for indirect or consequential loss is limited to

██████████

The *Consultant's* liability to the *Client* for Defects that are not found until after the *defects date* is limited to

██████████

The *end of liability* date is
Completion of the whole of the *service*

██████████

after the

OPTION X20: Key Performance Indicators (not used with Option X12)

The *incentive schedule* for Key Performance Indicators is in

Schedule 17

A report of performance against each Key Performance Indicator is provided at intervals of

3 months

Y(UK)2: The Housing Grants, Construction and Regeneration Act 1996

The period for payment is 14 days after the date on which payment becomes due

Y(UK)3: The Contracts (Rights of Third Parties Act) 1999

term *beneficiary*

not used

Part Two - Data provided by the *Consultant*

Completion of the data in full, according to the Options chosen, is essential to create a complete contract.

1 General

The *Consultant* is
Name

Address for communications

Address for electronic communica

The *fee percentage* is

Option C

The *key persons* are

Name (1)
Job
Responsibilities
Qualifications
Experience

Name (2)
Job
Responsibilities
Qualifications
Experience

Name (3)
Job
Responsibilities
Qualifications
Experience

Name (4)
Job
Responsibilities
Qualifications
Experience

Name (5)
Job
Responsibilities
Qualifications
Experience

Name (6)
Job
Responsibilities
Qualifications
Experience

Name (7)
Job
Responsibilities
Qualifications
Experience

The following matters will be included in the Early Warning Register

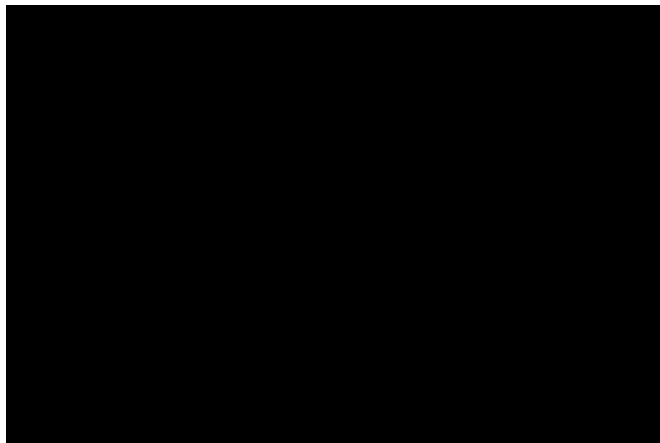
3 Time

The programme identified in the Contract Data is

5 Payment

The *activity schedule* is

Resolving and avoiding disputes



Name (2)
Address for communications

Address for electronic communications

X10: Information Modelling

The *information execution plan* identified in the Contract Data is

Contract Execution

Client execution

Signed Underhand by [PRINT NAME]

for and on behalf of the Environment Agency



Role

Project / contract information

Project name	Trash Screen Replacement Programme Yorkshire Detailed Design
Project SOP code	ENV0003382C
Contract number	C23290
Date	15/02/24

Assurance

Author	Connor Wiseman / Daniel Price	Date:09/11/2023
Consulted	NEAS	Date:19/10/2023
Reviewed	Terry Robson	Date:15/08/2023
Checked prior to issue	Edward Whitaker	Date:13/09/2023

Revision History

Revision date	Summary of changes	Version number
04/08/2023	First issue	1
10/08/2023	First Check by Daniel Price	2
11/08/2023	Amended	3
09/10/2023	Final edit	4
10/10/2023	For ARUP review and programme	5 (External Issue V1 – For ARUP Review)
09/11/2023	Updated Section 6 (Environmental Assessment)	6
13/02/2024	Amendments to capture exclusions and assumptions from ARUP	6.1 (External Issue V2 – ATAMIS For Contract signature)
29/02/2024	Updated to include standard EA carbon requirements	6.2

This Scope should be read in conjunction with the version of the Minimum Technical Requirements and Exchange Information Requirements current at the Contract Date. In the event of conflict, this

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LIT 13262 9.0

Scope shall prevail. The *service* is to be compliant with the following version of the Minimum Technical Requirements and Exchange Information Requirements:

Document	Document Title	Version No	Issue date
LIT 13258	Minimum Technical Requirements	V12	December 2021
LIT 17641	Exchange Information Requirements	EIR 3.0	December 2022

1 Overview

Following an asset failure, the Environment Agency's national stock of debris screens was reviewed for compliance with relevant debris screen guidance. The review's main objective was to ensure effective flood risk management and to limit any possible civil liability. A three phase National Review was undertaken with the support of JBA Consulting.

The 1st phase of the National review established that only 40% of the Environment Agency's assets were designed in line with guidance.

The remaining 60% were found to be equally split between:

- those identified as being non-compliant with guidance; and
- those where it was uncertain whether the screen was compliant with guidance.

The 2nd phase of the National Review further divided these 60% into higher or lower risk categories depending on whether more or less than 50 properties are deemed to be at risk in the event of blockage and resulting flood conditions.

In the 3rd phase of the National Review, JBA Consulting was appointed and undertook a site visit and an engineering assessment of each of the higher risk debris screens. The assessments determined the compliance or non-compliance of each screen against the Culvert, Screen and Outfall Manual C786 (CSOM), published by the Construction Industry Research & Information Association (CIRIA) in 2019.

Summaries of these assessments were presented in a series of reports that included initial proposals for achieving compliance at each of the higher risk screens. The proposals were categorised into Remove, Modify or Replace, or in some cases Do Nothing as the assets were deemed compliant with the CSOM guidance.

- Following the initial review undertaken by the Environment Agency at a national level, Arup have been engaged to verify the engineering assessments and generate outline designs for the noncompliant sites. The output of this additional assessment has identified, seven culvert debris screens across Yorkshire that are not compliant to the current CIRIA Guidance (C786) Guidance.
- The *works* are to undertake the detailed design (as described in this *Scope* document) at the eight identified sites:

Table 1

AIMS ID	Asset Name	NGR
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237487	Water End screen	SE5842152422
404112	Springfield Garth Screen	SE7906871221
319062	debris screen, Charles Street, Selby	SE6107432845
302902	James Street Main Channel Screen	SE6121451932
306032	James Street Overflow Screen	SE6120451959
280696	Carr Brook Upper	SK 39348 87211
280694	Carr Brook Lower	SK 39457 87898
237489	Poppleton Road	SE5880451357

Note that to undertake the detailed design at Poppleton Road, an additional element of 'outline design' may be required to agree a suitable concept.

A further site (listed below) has been identified. It is planned to include this site in the *works via* compensation event.

• Aims ID	• Asset Name	• NGR
• 241403	• Shipton Road	• SE5801354363

1.1 Objectives

Strategic context

The strategic driver for investment is to ensure that flooding to properties is not caused by non-compliance of a higher risk debris screen. The works form part of the national programme of higher risk debris screens.

Catchment Flood Management Plan/ River Basin Management Plans/Flood Risk Management Plans

Works to ensure that the screens are compliant with current guidance is consistent with the policies of the relevant plans for the Area. Any conflict will be referred to the Design Authority (see Management Case) for formal resolution.

Defra Single Department Plan, 2019

The key organisational objective from the Defra Single Department Plan, June 2019 for this project is "Pass on to the next generation a natural environment protected and enhanced for the future by

reducing flood risk, using resources more sustainably, and minimising waste.” This will be achieved by reducing flood risk.

EA2025 Action Plan

The Environment Agency has unified existing strategies and plans and set out our corporate goals in the EA2025. The work undertaken by the Area teams in the assessment of their higher debris screens during appraisal and detailed design will result in solutions compatible and supporting the over-arching goals of

- A nation resilient to climate change,
- Healthy air, land and water, and
- Green growth and a sustainable future.

Screens will be:-

- Removed where not required; or
- Modified or replaced so that a more sustainable river system exists (reducing risk of flooding, reducing impact of climate change, increasing fish passage etc).

The case for change

Unaddressed, the issue of non-compliance not only leaves people and property at risk but also exposes the EA to legal challenge. Following a recent flood event caused by a blocked screen the Environment Agency’s legal counsel stated that *“guidance has a special status in that compliance with guidance should mean we are not liable for any flood damage caused as the asset is having an overall beneficial effect. The guidance should be followed in all cases unless it can be shown by way of a rational analysis, applying reasonable engineering judgement that any asset should not comply with the Guidance.”* Therefore, there is a pressing need to improve both our stock of screens and their future management.

The purpose of the *works* is to provide a scheme that improves the functionality of the identified screens, ensuring that the Environment Agency’s higher risk debris screens are compliant to the latest guidance (CIRIA-Culvert, screen and outfall manual (CSOM), C786f, 2019).

The *Client’s* overall objectives for the project are:

- Compliance of the identified higher risk debris screen to the latest guidance (CIRIA-Culvert, screen and outfall manual (CSOM), C786f, 2019).
- Reduce the frequency of blockage of the watercourse from debris.
- Improve access arrangement for cleaning and maintenance
- No adverse effect on WFD and potential improvement to fish passage.

1.2 Outcome Specification

The *Consultant* shall deliver the *service* such that it meets the outcomes listed in this section.

- 1.2.1 The required outcome of this commission is to develop the outline design produced at appraisal stage into a detailed design such that it meets the project objectives and enables the scheme to be priced and constructed under an NEC4 Engineering and Construction Contract.
- 1.2.2 The *Consultant* shall ensure that the detailed design takes into consideration all relevant guidance and legislation and seek to minimise long-term asset/land management, maintenance costs and whole life carbon.
- 1.2.3 The design will also demonstrate that the *Consultant* has learnt from best practice and demonstrate how optimum flood risk reduction, natural processes, recreation, good ecological water quality and visual amenity can be combined.
- 1.2.4 Working with the *Client* and, if present, the Early Supplier Engagement (ESE) contractor, the *Consultant* shall be responsible for ensuring the design is acceptable to the *Client* (gaining approval of Gateway 3 and design authority review point 2), is designed to gain planning approval and any other associated approvals and to be acceptable to statutory and key stakeholders.
- 1.2.5 The *Consultant* shall investigate the need for planning permission on a site-by-site basis and if required will prepare a single planning application for the required sites covering the proposed construction works and shall submit these to the relevant Planning Authority for Planning Consent. The *Consultant* shall be responsible for submitting the required documents through the Planning Authority portal. The payment of Planning Fees and production of Planning Documents will be subject to Compensation Event. This commission must result in planning permission being obtained, and all other necessary permissions required for construction being identified. Should the *Consultant* become aware that the Planning Authority is not expected to support the scheme, or if the *Consultant* considers the refusal of the Planning Authority was not reasonably foreseeable, the *Consultant* shall raise an early warning.
- 1.2.6 Once planning permission has been obtained, the *Consultant* shall apply for protected species licences, on behalf of the *Client*. The services are to be subject to a Compensation Event.
- 1.2.7 The *Consultant* shall seek to develop the detailed design such that the cost and quality of the scheme represents value for money and can be constructed within the approved budget.
- 1.2.8 The *Consultant* shall demonstrate sustainability leadership through fully considering and contributing to achieving the *Client's* environment and sustainability ambitions and targets. These are set out in the EA2025 Action Plan, e:Mission 2030 Strategy, the Defra 25 Year Environment Plan and are in line with the principles of sustainability as described by the United Nation's Sustainable Development Goals.
- 1.2.9 The *Consultant* shall design the scheme taking into account the environmental sensitivities and opportunities of the sites and involving key environmental specialists as appropriate within the *Consultant* and the *Client's* organisation.
- 1.2.10 The *Consultant* shall ensure the design process fully considers and addresses sustainability including carbon reduction as strategic outcomes.
- 1.2.11 The *Consultant* shall develop the outline design into a detailed design that optimises the project objectives and outcomes identified in the FBC.
- 1.2.12 The *Consultant* shall produce a detailed design that supports the *Client* to achieve efficiency targets set for this commission and future stages of the project using the Combined Efficiency Reporting Tool (CERT).

1.2.13 The *Consultant* shall prepare the ECC Scope for the main works tender document. The ECC Scope shall not contradict the *Client's* standard documents. If there is a requirement to do so the *Consultant* shall justify the need and obtain the prior written agreement of the *Client*.

1.3 Constraints

1.3.1 The *Consultant* shall produce the first batch of detailed designs no later than 25/12/2023. This is to allow the *Client* sufficient time to tender and enter contract before the spring. (April onwards)

1.4 *Consultant* Project Management

1.4.1 In managing the *service* the *Consultant* shall follow all the requirements as set out in the Collaborative Delivery Framework schedules and the relevant content of the Minimum Technical Requirements.

1.4.2 The overall management of the commission shall:

- Contribute monthly to the updates to the project risk register.
- Provide input to project efficiency CERT Form, including but not limited to producing DMAT in conjunction with the client.
- Attend progress meetings.
- Produce monthly financial updates and forecasts meeting the *Client's* project reporting timetable together with progress reports. Monthly financial updates and forecasts to meet EA deadlines provided by no later than the 10th day of each month or otherwise agreed at the project start up meeting.
- Deliver a monthly progress report in the *Client's* standard template ([Link](#)) giving progress against programme, deliverables received and expected through IDP and MIDP, financial summary against programme and forecast project carbon.
- Provide a backup to application for payment in accordance with the *Client's* standard template ([Worksheet for actual Cost and Carbon CDF Lot 1](#))

1.4.3 Submission of an application for payment without this format of backup sheet will not be recognised and treated as a non-compliant submission.

- Commission capital forecast to be entered on FastDraft monthly & Project forecast carbon outturn to be entered onto FastDraft monthly. The *Consultant/Contractor* is required to provide a monthly forecast on FastDraft for both carbon and cost in accordance with FHU

[Framework Heads Up 244 Commercial Clarification 54](#)

[Framework Heads Up 256 Commercial Clarification 57](#)

- Attend project board meetings as required.
- Ensure quarterly input into framework performance assessment/environmental Performance Measures.
- Ensure the *Consultant's* environmental lead provides monthly progress and risk reviews to the *Client* and attends progress meetings, as invited.

- Maintain and show how accurate and up to date information on the whole-life cost and carbon is driving optimum solutions at all stages of design development.
- Capture lessons learnt relevant to scheme delivery for the EA PM to include in the scheme lessons learnt log.

1.4.4 The contract will be administered using FastDraft.

1.4.5 Procurement of subcontractors

Subcontractors need to be selected using best value processes.

This requires the *Consultant* to demonstrate that they have made reasonable attempts to obtain three competitive tenders for all work in excess of £25,000.

The only exception to this is work which has been accepted (in writing) by the hub Commercial Services Manager for strategic suppliers or for emergency work.

2 Outputs and Deliverables

The *Consultant* shall confirm the list of products with the *Client* and submit the product description for the *Client's* acceptance before commencing work on the product.

The *Consultant* shall produce the following key documents and those listed in the IDP on Asite for this commission:

- 2.1.1 Detailed Design.
- 2.1.2 Updated Programme showing milestones to construction completion including funding and environmental constraints and opportunities. The Programme shall take account of the timeframe required for all approvals necessary for mitigation and enabling works to be carried out in advance of main construction.
- 2.1.3 **Update Carbon Optimisation Report**
- 2.1.4 Capital and Whole Life Carbon outturn forecast for the project (using ERIC or agreed subsequent carbon tools)
- 2.1.5 GeoCobie data.
- 2.1.6 Master Information Delivery Plan (MIDP).
- 2.1.7 The *Consultant* shall in accordance with the latest Exchange Information Requirements ensure that a 3D modelling approach is undertaken. Where the *Consultant* can demonstrate that the use of 3D model is disproportionate to the works being undertaken and offers no benefit during the build or later phases of the project then this requirement can be removed with written, site-specific, agreement by the *Client*. The approach should plan to generate object-based native Autodesk format discipline 3D models and to federate these for coordination, alignment and review by the *Client* purposes. The federated output model should be produced in NavisWorks NWD format and open ifc format. Where the *Consultant* cannot demonstrate that the use of 3D model is disproportionate, 3D modelling will be subject to a Compensation Event.
- 2.1.8 Detailed Design Drawings for each screen compliant with CSOM C786F unless this is not practicable and departure notes have been agreed with *Client* Design Authority. Drawings must be sufficiently detailed to allow the Contractor to quote for, procure and construct the scheme.
- 2.1.9 Update all documentation from outline design, including but not limited to:
- Health and safety information
 - Known hazards
 - Public safety considerations/ assessment
 - Public Safety Risk Assessment (PSRA) for each site
 - Pre-Construction Information Pack (PCI)
 - Confirm method of cleaning
- 2.1.10 Produce H&S RAG list for each design, highlighting any significant risks that cannot be mitigated through the design and requiring sign off by the Project Executive and the Project Manager
- 2.1.11 Calculations.
- 2.1.12 Drawings (including landscape/ ecological design drawings/ planting schedules).

- 2.1.13 Environmental Assessment.
- 2.1.14 Specifications (including any additional clauses to Environment Agency standard specifications - e.g. Environment Agency NEAS Landscape Specification template).
- 2.1.15 Design philosophy statement, giving design process, standards used, and assumptions made to the satisfaction of the Client. This should demonstrate compliance with the Client's sustainability targets.
- 2.1.16 Design report, including asset schedule, buildability statement and maintenance plan.
- 2.1.17 Environmental Action Plan.
- 2.1.18 Materials Management Plan.
- 2.1.19 Ground Investigation (GI) specifications where it is deemed necessary to complete the design and construction
- 2.1.20 ~~Where necessary (if GI is agreed as required via CE), liaise with GI Contractor to prepare a factual report. Prepare an interpretative report where necessary, and summarise the GI conditions and parameters needed for the design in the Basis of Design note.~~
- 2.1.21 Update and completion of technical notes for *Client's* Design Authority, including justification of any deviation from the CSOM C786F
- 2.1.22 Updated Designers Risk Assessment
- 2.1.23 Development of all documentation required to enable successful planning approval where required
- 2.1.24 Review and update utilities works required at each site (in order to install any telemetry, CCTV, web-cams or water-level-monitors for example) in order to facilitate installation of screen
- 2.1.25 Obtain sufficient information about buried and overhead services to ensure the *works* are executed safely, and to avoid damage, as far as reasonably practicable, to third party assets.
- 2.1.26 Design the scheme taking into account the environmental sensitivities and opportunities of the sites and involving key environmental specialists as appropriate within the *Contractor* and the *Client's* organisation.
- 2.1.27 Produce a design with supporting documentation that enables the Client to achieve efficiency targets set for this commission and future stages of the project using the Combined Efficiency Reporting Tool (CERT) – this includes the production of a carbon report.
- 2.1.28 Ensure the detailed design process fully considers and addresses sustainability, including carbon reduction, as strategic outcomes.
- 2.1.29 Provide design support as necessary during construction to ensure satisfactory completion of the *works*, this includes but is not limited to all necessary environmental constraints. Surveys and design support.

- 2.1.30 *Consultant* to highlight requirements for surveys at the earliest opportunity and highlight efficiencies where the consultant can support in early submission.
- 2.1.31 Undertake a DMAT in conjunction with the *Client* to meet the *Clients* EIR.
- 2.1.32 A revised Hydraulic Performance Report, sufficient to support the Flood Risk Application Permit, demonstrating how the new screen will realistically perform (in terms of headwater flood levels) during the design flood compared to a baseline of 'no screen' and culvert blockage if design changes from that given in outline.
- 2.1.33 Where there is a need to depart from the guidance contained within the CIRIA C786 or other standards, the *Consultant* shall agree this with the *Client's* Design Authority and record with the reasoning in a written record of 'Agreed Departure' from guidance.

3 Site Investigation

3.1 Topographic Survey

- 3.1.1 The *Consultant* will review previous topographic survey to identify gaps in existing data. The Consultant will use this to inform the scope of supplementary topographic survey required.
- 3.1.2 The *Consultant* shall work with NEAS to ensure that environmental and sustainability constraints within the likely scheme footprint are identified and included in the survey and to determine if efficiencies can be made by joint working.
- 3.1.3 The *Consultant* shall procure topographical surveys that are required to provide further information to produce detailed design and in order to identify the location of key features around the screen locations so that we may clearly define working areas and accesses in the Scope. Specific requirements are:
- Preparation of a brief and procurement of the survey in accordance with the current version of the Environment Agency's National Standard Technical Specifications for Surveying Services, to enable the above.
 - Review and agree surveyors' site risk assessment.
 - Supervision and management of topographic survey company.
 - Review data / checking deliverables.
- 3.1.4 The *Consultant* shall use the outputs from the topographic survey in their modelling and design.
-

3.2 Ground Investigation

- 3.2.1 The *Consultant* shall scope any additional Ground Investigation required to undertake the detailed design and agree the scope with the *Client*. The service is to be subject to a Compensation Event.
- 3.2.2 The *Consultant* shall ensure that the environmental risks and opportunities associated with the Ground Investigation, including the collection of environmental evidence to support Appraisal and Assessment, are identified and addressed.
- 3.2.3 In scoping the Ground Investigation works the *Consultant* shall include the necessary works to facilitate efficient and sustainable materials management planning and re-use within the project.
- 3.2.4 The *Consultant* shall identify any contaminated land within the area of the project and specify testing within the Ground Investigation scope such that it can be classified properly for disposal.
- 3.2.5 The *Consultant* shall clearly communicate the scope of the Ground Investigation to the Lot 2 contractor for the Lot 2 contractor to undertake.
- 3.2.6 The *Consultant* shall supervise the Ground Investigation undertaken by the Lot 2 contractor. The supervision will be subject to a Compensation Event.
- 3.2.7 The *Consultant* shall produce a summary of key interpretative decisions based on the Ground Investigation undertaken by the Lot 2 contractor.

3.3 Ecological surveys

- 3.3.1 Undertake additional surveys consistent with current guidelines, where these are essential to securing permissions or are essential to achieving good environmental design such as informing the Biodiversity Metric. Utilise project information regarding habitat condition as well as the distribution of species and the current understanding of the factors governing their distribution. Use habitat, species, and survey information in a scientific and informed way to justify environmental decision making. Additional ecological surveys should be subject to a Compensation Event after seeking agreement from the *Client*.
-

3.4 Services Search

- 3.4.1 The *Consultant* shall obtain services data from utility companies and shall ensure services data is requested from relevant landowners. This shall include direct costs of obtaining data. This shall be incorporated into the design, including preparation of plans.
 - 3.4.2 The *Consultant* will arrange for a non-intrusive survey to detect key utilities (e.g. GPR) to inform SI and/or detailed design. The *Consultant* shall determine the extent of the survey and produce a specification for the survey in accordance with EA Guidance and Principal Designer discussion; defining type and purpose of survey including extents and available information.
 - 3.4.3 The *Consultant* will procure the service searches in the most efficient way. I.e. In conjunction with topographical surveys.
 - 3.4.4 The *Consultant* shall also provide a site supervisor to manage the survey supplier.
 - 3.4.5 The outputs from this survey shall be included in the design, including revising the plans. The output shall be used to make recommendations for any further surveys required which would include intrusive investigations to inform the detailed design.
-

4 Hydrology and Hydraulics

4.1 General

- 4.1.1. Modelling is not required as a standard deliverable for this *Service*. If the consultant believes it is required, they should notify the *client* who can then instruct as a Compensation Event.
- 4.1.2. Hydraulic calculations are to be produced as detailed in the deliverable section 2.1.32.
-

~~5 Economics Appraisal~~

~~The economics appraisal is intended to take the outputs of the earlier work and update the economic business case for input to the scheme business case. The detail should (normally) be covered by appraisal guidance and the Multi Coloured Manual (MCM) and by the business case template and guidance. It is anticipated that this work will be undertaken by the *Client*.~~

- 5.1.1 ~~Add any project specific requirements.~~
-

6 Environmental Assessment.

- 6.1.1 The *Consultant* shall give due consideration of the environment and sustainability risks and opportunities throughout the design evolution of the project to maximise the delivery of *Client* and project objectives.
- 6.1.2 The *Consultant* shall ensure that the project level assessment sits within the context of any previous strategic environmental assessment and additional information previously received or prepared. This commission will bring forward all relevant information and conclusions.
- 6.1.3 The *Consultant* shall be able to demonstrate how the information from the environmental assessment has been used to inform and adapt the detailed design.
- 6.1.4 Should the preferred option or the design significantly change (unless instructed to do so by the *Client*), the scope of the environmental assessment shall be adapted accordingly.
- 6.1.5 The *Consultant* shall ensure that the detailed design includes all of the necessary information to assure the delivery of all mitigation, management and monitoring measures and the delivery of wider benefits during construction.
- 6.1.6 The *Consultant* shall report the findings of the environmental assessment.
- 6.1.7 The *Consultant* shall be able to demonstrate how they have taken account of the *Client's* wider sustainability aspirations in the development of the detailed design and the associated benefits.
- 6.1.8 AD: The below activities and deliverables will be in accordance with any relevant guidance, including but not limited to *MTR LIT_65150 Environment and Sustainability*. They will be proportionate to the scheme.
- 6.1.9 AD: The following deliverables will not adhere to all requirements of the MTR. The bespoke nature of these has been detailed:

- 6.1.9.1 A Scoping Report Technical Note will be delivered instead of an EIA Scoping Report, to ensure proportionality of deliverables. The report shall include recommendations for additional data requirements, likely consents, licences and approvals.
- 6.1.9.2 Ecological Constraints will be recorded as a section within the Scoping Report Technical Note, rather than as a Preliminary Ecological Appraisal Report. This shall be informed by a site walkover and desk study; provide the necessary information to inform the development of options such that impacts on features of ecological importance can be avoided or minimised; and identify any requirements for further ecological surveys and assessment.
- 6.1.9.3 Water Environment Regulations (WER) Assessment Screening and Preliminary Assessment will be included as a section of the Scoping Report, rather than as a standalone deliverable.
- 6.1.9.4 Trees are present on site, therefore an arboriculture survey must be carried out to highlight any tree issues for consideration, inform the design process and identify mitigation requirements and enhancement opportunities at an appropriate level of detail. Tree surveys should be undertaken in accordance with BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. The results of this survey may be included as a section within the Scoping Report Technical Note, rather than as a standalone report. Sub-consultant costs, including the survey and liaising with suppliers, subject to Compensation Event.
- 6.1.9.5 Biodiversity Net Gain requirements will not be applicable to this project, if progressed under Permitted Development, as the use of the metric would not be proportionate to the scheme. Instead, opportunities for environmental enhancements will be identified and recorded within the scoping report technical note for each site.
- 6.1.9.6 The *consultant* will produce a materials management plan in line with achieving the Environment Agency's eMission targets for optimising our use of resources.
- 6.1.9.7 BREEAM infrastructure will not be applicable to this project. The *consultant* shall hold a sustainability workshop which includes consideration of resources and circular economy.
- 6.1.10 AD: The *Consultant* shall produce all the required deliverables as stated in *MTR LIT_65150 Environment and Sustainability*. The following deliverables, which are listed in the MTR, are not required. If it is deemed to be required at a later date, it will be instructed under a CE:
- BREEAM Infrastructure
 - Preliminary Historic Environment Appraisal Report
 - Preliminary Landscape and Visual Appraisal Report
 - Environmental Site Appraisal Plan
 - Historic Environment Ground Investigation Report
 - Landscape Option Plan
 - Water Environment Regulations Assessment
 - Biodiversity Net Gain
 - Historic Environment Management Plan

- Environmental Statement
- Landscape and Visual Impact Assessment
- Historic Environment Management Plan for Detailed Design and FBC
- Final Landscape Masterplan

7 Preferred Option Development – Detailed Design

- 7.1.1 The *Consultant* shall assist with pricing and buildability, in conjunction with the ESE contractor if involved at this stage.
- 7.1.2 The *Consultant* shall develop designs with the *Client* including the Field Service and Area Teams.
- 7.1.3 The *Consultant* shall discuss with the *Client* where environmental information, landscape details, archaeological information, methodologies or on-site management deviate from that stated in the CSOM guidance. This will enable any legal implications to be checked and for the environmental implications of the changes to be assessed.
- 7.1.4 The *Consultant* shall discuss developments in the design with the appointed Principal Designer.
- 7.1.5 The *Consultant* shall discuss with the *Client* how the design enables carbon reduction targets to be met.
- 7.1.6 The *Consultant* shall facilitate design workshops, facilitate risk workshops to produce a risk register with analysis in accordance with [LIT 14847](#) Risk Guidance for Capital Flood Risk Management Projects.
-

8 Stakeholder Engagement

- 8.1.1 The *Consultant* shall assist the *Client* with stakeholder meetings as required. The *Consultant* will provide materials requested for the purpose of stakeholder engagement and may be required to provide representation and support in stakeholder meetings.
- 8.1.2 The consultant shall engage with 3rd party stakeholders including utility suppliers and planning authorities, at the instruction of the Client. Engagement to be subject to Compensation Event.
-

9 Health and Safety

- 9.1.1 Health, Safety and Wellbeing (HSW) is the number one priority of the *Client*. The *Consultant* shall promote and adopt safe working methods and shall strive to deliver solutions that provide optimum HSW to all.
- 9.1.2 The *Consultant* shall follow and comply with the requirements outlined in the Safety, health environment and wellbeing (SHEW) Code of Practice (LIT 16559).
- 9.1.3 The *Consultant* shall supply designer risk assessments, drawings and any other data required to fulfil their duties under CDM.
- 9.1.4 The works on site included in the geotechnical section will be subject to notification to the HSE if required. Detailed design work shall be treated as if it was notifiable.
-

10 Carbon

- 10.1.1 The *Consultant* should optimise detailed design for lowest carbon and be evidencing this through an assessment of carbon forecast against a carbon budget.
- 10.1.2 **The *Consultant* must have a supporting carbon appendix that reports the results of appraising carbon impacts and the carbon assessment.**
- 10.1.3 The *Consultant* should be looking at how to minimise carbon throughout the detail design stage. The project will produce 'draft' versions of carbon assessments (as forecasts) as well as carbon budgets to reflect their consideration of opportunities and constraints in reducing carbon as they progress their detailed design. A monthly report of the 'draft' forecast and budget of the proposed option must be provided via FastDraft (using the carbon form) to inform the EA of progress.
- 10.1.4 ~~The *Consultant* shall continue to use the bespoke JBA debris screens carbon tool for carbon reporting during detailed design as agreed with the *Client* during appraisal and outline design stages. Any changes to the carbon reporting method must be agreed with the *Client*.~~
- 10.1.5 **The *Consultant* should update the carbon appendix and supporting carbon assessment and budget upon completion of detailed design in preparation for implementation of ERIC tools by the construction supplier. Any changes to the carbon reporting method must be agreed with the *Client*.**
- 10.1.6 The *Consultant* should set out most likely opportunities for further reductions by project completion.

Carbon Terminology

Important! “Carbon Forecast” and “target” means different things in different systems and situations. Therefore, it is important in all Contract Communications to be clear which forecast or which target is meant. Using the terminology listed here will help.

Carbon Terminology. For clarity the below terms are definitions for required deliverables and related data and should be used in communications about carbon.

Carbon Assessment - Carbon assessments are a deliverable of the service and defined in LIT14284 and comprise:

i. Carbon calculations set out in either a ERIC Carbon Modelling Tool (CMT) or Carbon Calculator (CC) file versions. ERIC CMT/CC versions for business case project stages result in overall emission figures for the project including a whole-life carbon forecast, a capital carbon forecast and a capital carbon budget. ERIC CC versions for construction result in overall figures for the project including capital carbon actuals (for construction outturn or to date) for comparison with the forecast and budget figures of earlier versions.

j. Carbon calculations set out in a Carbon Impact Tool (defined in the FCRM Appraisal Guidance) for the appraisal of business case options. The Carbon Impact Tool will provide carbon benefit figures in tCO₂e and monetised Net Present Value that are required in the Business Case carbon tables and in the Partnership Funding Calculator (Economic Summary OM1a)

k. Carbon Appendix that captures the results of calculations from ERIC and the Carbon Impact Tool and provides a summary of progress made in maximising carbon reduction opportunities on the project to date as well as confidence levels for further reductions by project completion.

l. A verification process of the carbon assessment carried out by an EA appointed Carbon Specialist and requiring updates to the carbon calculations and Carbon Appendix as required. Verified versions of carbon assessment deliverables and their results are required to support carbon tables in the business case.

Terminology for carbon assessments:

ERIC is a PAS 2080 Compliant assessment tool that the Client requires Consultants to use Carbon Calculator part of ERIC application seen abbreviated to CC Carbon Modelling tool part of ERIC application seen abbreviated to CMT EA carbon specialist the specialist employed by EA to verify carbon assessments

Verified: An output of the verification process of a carbon assessment supporting either a business case or construction completion that has been conducted by an EA carbon specialist and accepted by the Project Executive.

Business Case Carbon Appendix Spreadsheet to capture information required by EA for carbon assessments. This document should be updated and verified to support business cases. It should be updated and verified at the end of construction and for agreed changes during construction.

Whole-life Carbon GHG (greenhouse gas) emissions and removals calculated for a carbon assessment associated with the creation and end-of-life treatment of an asset, network or system, and including with its maintenance and refurbishment

Capital Carbon GHG (greenhouse gas) emissions calculated for a carbon assessment associated with the construction or refurbishment of an asset, network or system.

Capital Carbon Actuals capital carbon emitted during construction activities - for a defined period of time eg) capital carbon actuals to date eg) capital carbon actuals at contact completion eg) capital carbon actuals at project completion or eg) capital carbon actuals April 2022 to March 2023 At construction completion, an 'as built' version of ERIC calculations will capture outturn actuals against an asset breakdown and provide a total to compare with previous ERIC version 'forecasts'.

Capital Carbon Budget a decarbonisation benchmark of capital carbon emissions for a project based on the current project scope and based on expected levels of decarbonisation of the asset types set out in a carbon assessment. It is calculated in every version of an ERIC (CC and CMT) calculation and is based on generic asset types and associated rates of decarbonisation over future years.

Capital Carbon Forecast an estimate of capital carbon emissions from a project based on the current project scope calculated using a PAS 2080 compliant carbon assessment tool. It is calculated in every version of an ERIC (CC and CMT) calculation and used to optimise for lowest carbon through the use of emission rates provided by the EA or provided by manufacturers of products (e.g. low carbon) that are outside of the EA rates (manufacturer rates will be verified by the EA).

3. Important! “Carbon Forecast” and “target” means different things in different systems and situations. Therefore, it is important in all Contract Communications to be clear which Carbon Forecast or which target is meant. Using the terminology listed here in S 215 (1) will help.

1. Carbon Reporting

g. Reporting on capital carbon forecasts and budgets via FastDraft is a monthly requirement of a service for business case project stages. The reported data will be project carbon figures from the latest ERIC calculations that consultants maintain as ‘work in progress’ versions to support their appraisal and design deliverables.

h. Reporting on capital carbon actuals to date and a latest capital carbon forecast for construction completion via FastDraft is a monthly requirement of a service for construction stage. The reported data will be based on evidence of embodied carbon in products supplied and construction services carried out up to the reported date and aligned to reported expenditure at the same time. See ref[scope monthly report]

1. Additional terminology for carbon reporting:

Consultant Carbon Forecast Form Carbon forecast form in FastDraft to be completed monthly as per contract Scope requirement - reporting is for Project (not contract).

FastDraft Carbon Forecast menu option in FastDraft can't be changed but add FastDraft to name in communications to distinguish from capital carbon forecast Draft Denotes any FastDraft reported data from carbon assessments that are 'work in progress' versions maintained by the consultant or contractor and will not therefore be required to be verified by the EA.

Back Up Sheet This is the colloquial name given to a "worksheet of actual carbon and cost data" as more detailed evidence of emissions and expenditure in a reporting period. Use LIT 61271 (Lot 1 PSC) or worksheet name in Scope and Communications

2. Carbon Performance Measure for contracts

3. The capital carbon performance measure for contracts is based on the verified results of a carbon assessment related to either business case submissions for PSC contracts or completion of construction for ECC contracts. The measure sets a performance target and bands above/below this target for rates of pay out or pay back in relation to the capital carbon forecast and budget for PSC contracts and for the capital carbon actuals and capital carbon forecast for ECC contracts.

Additional terminology for carbon performance measure:

Carbon Performance is measured at completion of the contract from the results of the carbon assessment that has been produced as a deliverable of the contracted service and been verified and approved by the EA

Carbon Performance Tables where carbon performance is related to the incentivisation payout / payback bands and contract type. Applied at the time the contract signed.

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PSC Carbon Target is set at a fixed % above the Capital Carbon Budget (tCO₂e) that has been verified at end of current project stage. It is a fixed number not a range.

Project Carbon Payback Threshold This is the threshold at which payback to Client is paid as stated in the Carbon Performance tables.

13. In producing a FBC, the Consultant must aim to minimise carbon emissions by:

1. Stating 'minimised carbon' as a strategic objective.

2. Evaluate and appraise options by their net whole-life carbon impact value in tCO₂e and monetised as carbon £ NPV as set out in the FCRM Appraisal Guidance.

3. Selecting a most likely/preferred option that best delivers the outcome measures and strategic objectives whilst minimising carbon based on the whole-life carbon impact results.

14. Optimising for lowest carbon in the design of the proposed option and evidencing this through the carbon assessment results. In producing a FBC the Consultant must produce a verified carbon assessment with a Business Case Carbon Appendix that reports the results and specific measure of project carbon performance that is the Capital Carbon Forecasts considered against the capital Carbon Budgets from ERIC.

15. The PAS 2080 Compliant Carbon assessment tool to be used by the Consultant is ERIC and guidance on it's use is available from the Client as an Operational Instruction.

16. The Client carbon assessment tools for calculating Capital Carbon Forecasts is ERIC Carbon Modelling Tool (CMT) or ERIC Carbon Calculator (CC).

17. The Client carbon assessment tool for calculating Capital Carbon Budget is ERIC CBUD sheet, which is integrated into the CMT and CC ERIC tools

18. The Business Case Carbon Appendix is a Client required report for the business case of the results of carbon assessments . This must be Verified by Client appointed EA Carbon Specialist before submission of the FBC.

19. The Consultant shall minimise carbon throughout the FBC stage. The Consultant will produce ‘work in progress’ versions of ERIC calculations giving Draft versions of Capital Carbon Forecasts, as well as Capital Carbon Budgets to reflect their consideration of opportunities and constraints in reducing carbon as they progress their appraisal of options and optimisation of a proposed option and design. The latest version results will be reported via FastDraft.

20. A monthly report of the Draft Capital Carbon Forecast and Capital Carbon Budget of the most likely / proposed option must be provided via FastDraft Carbon Forecast (using the Consultant Carbon Forecast Form) to inform the Client of carbon reduction progress.

21. The Consultant preparing the FBC will submit the Business Case Carbon Appendix and supporting Capital Carbon Forecast and Capital Carbon Budget i.e. ERIC for Verification by an Client’s EA Carbon Specialist via Asite. The verification process requires Consultant engagement with the EA Carbon Specialist and may result in actions to:

22. update the Business Case Carbon Appendix and supporting Capital Carbon Forecast and Capital Carbon Budget i.e. ERIC

23. set out opportunities for further reductions in carbon before the Project completion.

24. The Verified Capital Carbon Budget and Capital Carbon will be required in the FBC Business Case Carbon Appendix and are required for the Carbon Performance Table and measures set out in this contract.

~~4.1.6 AD any project specific constraints.~~

11 General

11.1.1 Not Used

12 Relevant guidance

12.1.1 The *Consultant* shall deliver the *service* using the following guidance, this is not an exhaustive list:

Ref	Report Name	Where used
LIT 16559	Safety, health environment and wellbeing (SHEW) Code of Practice	Throughout
183_05	Data management for FCRM projects	Mapping and modelling
379_05	Computational Modelling to assess flood and coastal risk	Modelling
LIT 14847	Risk Guidance for Capital Flood Risk Management Projects	Detailed design
OI 120_16	Whole-life Carbon Planning Tool	Detailed design
LIT 14284	Whole Life (Construction) Carbon Planning Tool User Guide	Detailed design
	Access for All Design Guide	Detailed design
	Project Cost Tool	Costs
LIT 12982	Working with Others: A guide for staff	Consultation & Engagement

Ref	Report Name	Where used
LIT 12280	Lessons Log template	FBC
LIT 55096	Integrated Assurance & Approval Strategy	Approvals

13 Requirements of the Programme

- 13.1.1 The *Consultant* shall provide a detailed programme in Microsoft Project meeting all requirements of clause 31 of the *conditions of contract*.
- 13.1.2 The *Consultant* shall provide a baseline programme for the project start up meeting and shall update the programme monthly for progress meetings with actual and forecast progress against the baseline. The programme shall also include alignment and submission of the BIM Execution Plan (BEP) and Master Information Delivery Plan (MIDP).
- 13.1.3 The programme shall cover all the activities and deliverables in the project and include all major project milestones from commencement to the end of the reporting, consultation and approvals stage.
- 13.1.4 The programme shall include review and consultation periods for drafts, scoping letters, statutory consultation etc.
- 13.1.5 Include internal project team/board decision gateways (as a minimum) for:
- a) Gateway 3, to ensure the detailed design and costings are complete and the works can be constructed within the allowed time and budget.
- 13.1.6 The following consultation periods should be incorporated into the programme, with adequate allowance for review and revision of documents by the project team where appropriate:
- a) Design authority review point 2, ensure sufficient time is given in programme for Client review and sign off.
 - b) *Consultant* internal review (as per *Consultant's* quality review procedures) and *Client* review of all outputs before circulation to the wider project team to ensure high quality of all output.
 - c) Sufficient allowance for internal and external consultation. Statutory consultation periods at scoping & draft stages. Note local authority approvals through cabinet prior to public consultation can take a long time.
 - d) Local Authority time for planning approval.
 - e) *Client* approvals as required to include for Reservoirs Act, impoundment licence, European Protected Species Mitigation (EPSM) licence.
 - f) Time for pricing up of the works by the Lot 2 contractor.
 - g) Submission for approval and time allowance for the *Client's* approval process.
- 13.1.7 The following are absolute requirements for Completion to be certified:
- Population of the *Client's* latest version of the Project Cost and Carbon Tool, or its successor.
 - Transfer to the *Client* of BIM data.
 - Clause 11.2(2) work to be done by the Completion Date.
 - Sign off from Design Authority for all detailed designs.

14 Services and other things provided by the *Client*

14.1.1 Access to Environment Agency systems and resources including:

- Asite.
- FastDraft.
- Collaborative Delivery Community SharePoint access.

14.1.2 Site access authorisation letter(s).

15 Data

Requirements for the handling of project data are covered by the framework schedules.

15.1.1 The *Consultant* shall handle, manage data in accordance with the framework schedules and Exchange Information Requirements (EIR).

16 *Client's* Advisors

16.1.1 The *Client* for the contract is represented by the Programme & Contract Management (PCM) team, primarily the EA Project Manager and in their absence the Project Executive. Instructions may only be given by these staff.

16.1.2 The *Client* has a number of advisory departments. Instructions will only be deemed enacted from them when they are confirmed by an instruction from the *Service Manager*. These departments include Asset Performance, Partnership & Strategic Overview, NEAS and others.

16.1.3 The *Client's* organisation has a regulatory function. Communications from the Environment Agency in its capacity as a regulator are not to be confused with communications as the *Client* or the *Service Manager*.

17 *Client* Documents the *Consultant* Contributes to

17.1.1 The *Client* maintains several project documents, the *Consultant* is required to contribute to these *Client* owned documents:

- Project Risk Register.

- Project Efficiency CERT Form.
 - Scheme Lessons Learnt Log.
 - Cost and Carbon Tool (CCT).
 - Information Delivery Plan (IDP)
-

Appendices

Appendix 1 – Information Delivery Plan (IDP)

The *Consultant* shall adhere to the Environment Agency's Exchange Information Requirements (EIR) framework level minimum technical requirements.

All *Client* issued information referenced within the Information Delivery Plan (IDP) requires verifying by the *Consultant* unless it is referenced elsewhere within the Scope.

The *Consultant* shall register for an Asite Account and request access to the project workspace to view the IDP and update to create the MIDP.

Guidance on the IDP can be found [here](#)

Link to IDP:

[https://portalak.asite.com/da/notification?action_id=413&nid=1_7_2175439_10753251_53571153_16540164_0\\$\\$BdGpFK](https://portalak.asite.com/da/notification?action_id=413&nid=1_7_2175439_10753251_53571153_16540164_0$$BdGpFK)

Create the IDP on Asite and embed a PDF version as Appendix 1.

11/08/2023, 09:11

Print Form Details

Information Delivery Plan Employers Information Delivery Plan

Project Ref:	Project:
ENV0004648C	YOR - Lower Risk Debris Screens
IDP Manager:	Purpose of Project:
Connor Wiseman, Daniel Pric...	Design and Build of 44 Nr Trash screens to ensure compliance with the Culvert, Scr
Template:	Plan of Work:
BIM CDE IDP Template	POW Template

Ref	Deliverable
A0000	Site and Asset Conditions
A0100	A0100 Extent and Boundaries Documents or drawings which define the area of interest (which could be a project area, extent of asset group, study area etc
A0300	A0300 Topographic Survey(s) Topographic data, scope and results of any topographic surveys, documentation of topographic surveys and any related outp
A0400	A0400 LIDAR LIDAR data including maps, documentation, scope.
A0500	A0500 Laser Scans (Point Cloud) Point cloud data including models, data, documentation and scope.
A0600	A0600 Utilities Any information providing evidence of utilities in the area of study which could include but is not limited to utility search reco
A0700	A0700 UXO Assessment Information on Unexploded Ordnance (UXO) including scope and related documents, maps, desk top studies, risk assessmen
A0800	A0800 Geotechnical conditions Information on geology and ground condition of the project including scope of the survey, maps, raw data (e.g. bore hole logs
A0900	A0900 Contaminated Land Information on contamination within the area of study including scope of the survey, maps, raw data, factual reports (e.g. sam
A1200	A1200 Asset Condition Any documentation which includes an assessment of whether the asset is able to do the job it's designed to do. Conditions o
A1400	A1400 Base mapping Ordnance Survey (OS) maps
B0000	Design
B0100	B0100 Technical Standards Any specifically referenced technical standards, requirements or reports over and above the minimum technical requirements
B0200	B0200 Functional design specification Specification that defines the expected behaviour of a product or group of products
B0400	B0400 Design philosophy A description of how the asset(s) achieve the desired outcome
B0500	B0500 Design Commitments Design requirements or constraints which we are required to include or adopt
B0700	B0700 Buildability Statement Buildability statement - evidence (e.g. a report) demonstrating that buildability has been evaluated and may include methodol
B1000	B1000 Asset contingency plan or failure modes
B1100	B1100 Design of Remediation for contaminants Follows on from findings under A0900 and details how any contaminants identified have been addressed.
B1200	B1200 Value Engineering Record Record of design changes undertaken for value engineering

<https://adoddleak.asite.com/adoddle/view/communications/apps/printViewForm.jsp>

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<https://www.asite.com/login-home>

Appendix 2 – Modelling Technical Scope

If required, insert the Modelling Technical Scope created using the Quick Scope Writer, referenced in Section 4.

Template Reference:	Version:	Security marking:	Page 31 of 32
LIT 13262	9.0	OFFICIAL	

Project Reference: ENV0003382C
Uncontrolled when printed

